

**Safety Review Committee
September 17, 2004
10:00 AM – 12:00 PM**

Minutes

Members Present

Joel Ager, Michael Banda, John Bercovitz, Sharon Doyle, Ben Feinberg, Ken Fletcher, Mack Kennedy, Augusto Macchiavelli, Karen Ramorino, Peter Seidl, Linda Smith, Weyland Wong, Hisao Yokota

Members Absent

Dennis Collins, Richard Kadel, Peter Lichty, Don Lucas, Linfeng Rao, Scott Taylor

Others Present

John Chernowski, Kathie Hardy, Michael Kritscher, Ed Lampo, Phyllis Pei, George Reyes, Janice Sexson, James Symons, Pat Thomas, Robin Wendt, Kevin Lesko

Minutes of August Meeting

The minutes of the August meeting were approved as submitted.

Nuclear Science Division MESH

The Nuclear Science Division (NSD) MESH review team was led by Ed Lampo and included Richard Kadel and Othon Monteiro. Otis Wong from the Office of Assessment and Assurance coordinated the review. Ed Lampo thanked the review team and introduced NSD Director James Symons. Ed commended NSD for their strong management commitment to safety and good safety record. They have had no reportable Occurrences for 3 years and no recordable injuries in 2004.

James Symons introduced Kevin Lesko, NSD Safety Committee chair, and Kathie Hardy, Division Safety Coordinator. NSD's scope of work includes developing large detectors (STAR), experiments deep in mine shafts (SNO), international collaborations, hosting many students and guests, and operating the 88" cyclotron. They are building the Gretina detector, and working on the Rare Isotope Accelerator, to be built at Argonne or Michigan State University. James reviewed the organization structure and major groups. There are about 118 employees, 239 guests, and 40 students in the division. Claude Lyneis manages the 88-Inch Cyclotron and has line management authority for all ES&H activities within Building 88, including Cyclotron Operations. NSD has some technical staff matrixed from Engineering Division and they are working together to develop a Memorandum of Understanding.

The Division Director approves the Integrated Safety Management Plan, and participates in Self-Assessment. The Safety Coordinator develops and administers the ISM Plan. The Division Director meets weekly with the Safety Coordinator. Safety is an agenda item at the Monday morning division meetings, which are held twice a month. The Safety Coordinator and safety committees review new work plans. There are two safety committees – one division-wide, and one for the 88-Inch Cyclotron. Dennis Collins chairs the 88-Inch Cyclotron safety committee and also serves on the division-wide safety committee, to ensure communication between the two groups. For example, a problem with a student working on an RWA without training was addressed by the 88-Inch Cyclotron committee, and discussed as a Lessons Learned at the

division committee. All experiments at the 88-Inch Cyclotron are reviewed and approved by Claude Lyneis. Line managers review on-the-job training completion and hazard communication.

The report noted 6 Noteworthy Practices:

- Bi-weekly, division-wide meetings and weekly technical staff meetings;
- 88-Inch Cyclotron Program Action committee reviews beamline work;
- Regular review and update of formal authorization and low-hazard projects;
- Documentation for heavy element Nuclear and Radiochemistry Group is well-organized and maintained;
- Elimination of all mixed waste generation;
- Chair of NSD Safety Committee checks JHQs.

6 Observations:

- Less ES&H information on website than some other divisions;
- Safety meeting minutes should be posted on website or sent in level-1 e-mails;
- Need to complete an MOU with Engineering Division for matrixed employees;
- Equipment at 88-Inch Cyclotron was blocking exits;
- Safety stop wiring on Cave 4C door was deteriorated;
- Some inspection documents were not provided to the MESH team;

and 4 Concerns:

- Ergonomic evaluations are progressing slowly;
- Unsecured cabinets and equipment;
- One minor and one major RWA violation this year and 4 major violations in 2003;
- Deficiencies are not being consistently tracked in LCATS.

In response:

- The RWA violations included some students not being fully trained or listed on the RWA. The procedures were in place, but were not being consistently followed. The Los Alamos laser accident highlights the importance of ensuring students follow procedures. The NSD Safety Coordinator and safety committee are now participating in RWA renewals. Compliance is being monitored.
- Efforts are being made to improve seismic bracing and housekeeping. Problems near exits were addressed right away. Areas are being addressed systematically as changes are made.
- Inspection sheets exist for all areas and efforts to enter findings into LCATS have been given a higher priority.
- Ergonomic training is being increased. James has set goals for one program (25% of Division) to complete all ergonomic evaluations in the next 6 months. More consistent follow-up is being provided.
- The cave with the wiring problem is not in use right now. Sensor wiring in all caves is being checked and repaired. The resolution will be tracked in LCATS.
- Development of the MOU with Engineering Division is in progress. The relevant Regulations and Procedures Manual section can be used as a model.
- The safety committee is looking at other divisions' web sites to get ideas for improvements.
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The results of the MESH Review will be discussed at the next division-wide meeting.

There was a discussion of training for NSD people who work off-site. There are 2-3 people stationed at Brookhaven for the STAR program, and about 8 people may be there during a run. They take the local safety training courses, and use both Brookhaven and LBNL safety staff as resources for solving safety problems. Training requirements for work in mines varies by the location. The researchers working in Canada must complete one week of required training for underground work. The proposed Homestake Mine research facility is not active yet. The training requirements will depend on which agency runs the facility.

Comments from the Chair

The committee welcomed Karen Ramorino, the new SRC member representing the Directorate and Business Services.

Facilities Division MESH

The Facilities Division MESH Review Team was led by Peter Lichty and included Mike Kritscher, Scott Taylor. John Chernowski from OAA coordinated the review. Mike Kritscher introduced Facilities Division Director George Reyes. Mike commented that he was impressed by the commitment of Facilities Division management to safety, and that their cooperation helped to make the review process a positive experience.

George Reyes arrived at LBNL 23 months ago. He has been responsible for implementing the change from department to division, including a new organization structure and new philosophy. George wants to establish “zero safety incidents” as a core value in the division. He believes safety incidents are not random “accidents”, but are the result of poor planning. The new organization structure was introduced in April. The division has been divided into 3 departments: Plant Operations (Steve Black), Design and Construction (Jerry O’Hearn), and Site Services (Bill Llwellyn). Plant Operations will have 5 sections. The new structure is more functionally oriented and clarifies roles and responsibilities. A Deputy Director has been hired and serves as the Chief Safety Officer for Facilities. George introduced Janice Sexson, the Safety Coordinator. George believes it is important to have a Safety Coordinator within the Division who knows the work force and resources and has credibility with the workers. Carole Fried is the EH&S Liaison. Facilities Division has the most diverse work force in the Lab, including all skill levels from licensed professionals and new immigrants with limited experience. A consultant assessed the organizational culture and identified gaps between the old culture and new leadership values. The challenges included a lack of management training and external perspective.

The report noted 5 Noteworthy Practices:

- Division Safety Coordinator meets with all new hires;
- Well-developed system of ES&H communication;
- EH&S review of contractors;
- WOW Program increases safety awareness;
- Regular, semi-monthly executive walkthroughs by Division Director and Deputy

3 Observations:

- Journeymen do not receive equipment-specific training;
- Architects and Engineers group and crafts supervisors do not receive training in OSHA standards;
- WOW program does not bring individuals’ behavior to the attention of their supervisors;

and 8 Concerns:

- Formalize role that contractor' safety performance plays in awarding contracts;
- Small work orders may bypass the design review step;
- Communication of hazards for small jobs not always reaching line workers;
- Needed lockable switches on a panel saw;
- Bldg. 76 Carpenter shop lacks administrative hazard controls;
- Several safety concerns were not identified by workers;
- Some walkthrough and WOW concerns were not entered into LCATS;
- Completed work not regularly inspected for safety compliance.

Facilities Division has been working hard to improve their safety record. Recordable injuries have been reduced by 14% and days away have decreased by 11%. 95% of required training has been completed. Some effective elements of their safety program include: Workers Observing Workers (WOW), executive walkthroughs, accident reviews and variety of safety meetings (executive, all-hands, department, craft, and task).

The MESH team found that journeyman crafts personnel do not receive equipment-specific training. George explained that Journeyman-level employees have successfully completed a 3-4 year apprenticeship program that qualifies them to operate the types of equipment common to their trade. Most safety problems have resulted from cultural attitudes that have lead to non-compliance with safety rules, rather than from a lack of training. Workers do receive orientation to the equipment on which they will be working.

The MESH Review recommended that Facilities formalize the system for evaluating contractors' safety records in awarding contracts. The information required to be submitted to qualify bidders depends on the size and nature of the project. Facilities Division plans to establish criteria for pre-qualifying bidders. Construction contracting is different from buying things and it should be moved from Procurement into Facilities. The construction contracting system at LBNL will be more similar to UC. George is looking at best practices from the UC campuses and other models. Facilities will develop contract provisions for substance abuse prevention and personal protective equipment. Contracts will contain penalties as well as performance incentives to encourage safety. George recently met with contractors to discuss a near-miss of a potentially fatal accident at the Molecular Foundry.

The review team found that Architect and Engineering group managers and craft supervisors are not receiving training in how to comply with OSHA standards. The Lab has been following Federal OSHA standards for operations and conditions and CalOSHA for construction. Facilities personnel are familiar with building codes. Facilities supervisors are working to increase the level of awareness of OSHA standards within their groups. LBNL needs an OSHA compliance expert. George has been discussing this need with Peter Lichty. There should be a defined EH&S role in the design review process.

There were related concerns that small work orders bypass the design review process, and that hazard information is not always being communicated to workers. OSHA-compliance checklists would be helpful. Workers need to receive the hazard information from the HEAR database. The Technical Services group has been using "ZAP" hazard analysis cards. Plant Operations is developing a work order hazard review process.

A panel saw needed to have lockable switches. This has been completed.

There was a concern that the Bldg. 76 carpenter shop lacked formal administrative controls (assigned supervisor, written procedures, training). A supervisor has been hired, procedures are being written, and signs are being posted to limit shop use to qualified personnel.

There were several specific concerns noted regarding electrical safety, gas storage, etc. These have been corrected. George is working with the supervisors to clarify the roles of employees and empower them to take personal responsibility for identifying and correcting safety deficiencies.

There was an observation that the WOW program is not notifying supervisors when their employees practice unsafe behaviors. George is holding supervisors accountable for ensuring their employees are using PPE. Supervisors are participating in the WOW program.

Some safety problems were not being tracked through LCATS. Findings from WOW and executive walkthroughs are now being tracked on LCATS. The Safety Coordinator will report LCATS completion status to the Division Director.

Noteworthy practices include:

- A well-developed communication system uses several methods to establish two-way communication.
- Division Safety Coordinator meets with all new hires during their first week;
- EH&S oversees construction contractors.
- The WOW program has been improved and includes supervisors. A recent spot award was given to Tammy Brown for her participation.
- Division Director and Deputy walk through workspaces more frequently than any other division.

George Reyes is continuing to work on management skill development, culture change, and succession planning. He has written corrective action letters to supervisors and suspended some employees to convince them he is serious about safety improvements.

General Discussion

SRC members noted that several divisions reviewed this year have had deficiencies in entering findings into LCATS. This seems to be an area where overall improvement is needed. Phyllis Pei plans to look at the LCATS activity by division, in terms of the number of entries and the percent being completed. People who do safety inspections could help to enter the findings into LCATS rather than leaving all data entry to the Safety Coordinators. Phyllis will ask EH&S Liaisons to check the LCATS activity for their division(s) and discuss problems with line management.

Five MESH Reviews have been completed this year. Ben Feinberg thanked the team members and recognized John Chernowski for his support that made the reviews possible.

The presentation on EH&S databases was deferred to the October meeting.
The meeting was adjourned at 12:00 noon.

Respectfully submitted,
Patricia M. Thomas
SRC Secretary